

Frontier Deployment Status and Plans

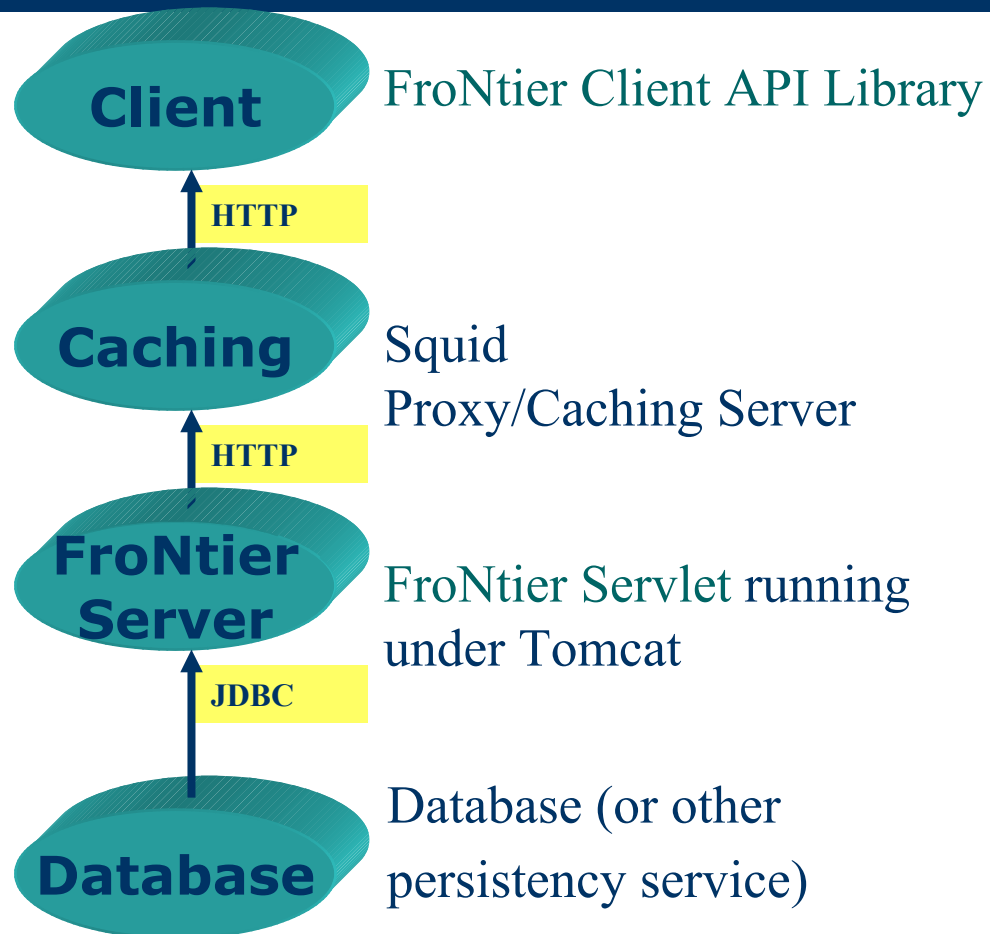
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CDF Database Taking Stock

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FroNtier Overview

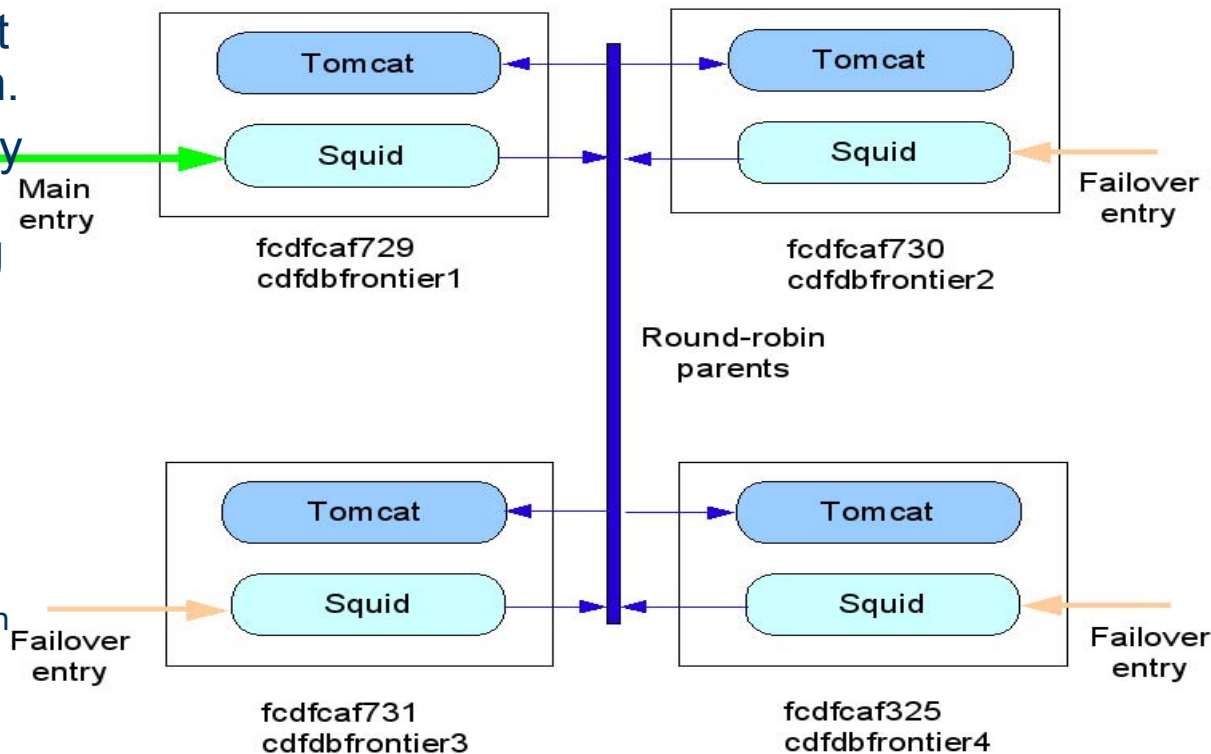


Status of Major Components

- Database connection management:
 - Currently using Oracle “thin” client which addresses the database instance directly.
 - Working on implementing the “thick” client which uses TNSnames to connect to oracle. This will enable the fail over features CDF has access to in their replicated Oracle environment. Requires Oracle Client version 10g, Steve has this working on his laptop and is waiting for the 10g client kit for linux.
 - Connections are being “sniped” to eliminate unused connections. Up to 10 connections are allowed per frontier server if the load demands. Resolving problems encountered with this.

The Launchpad

- There are three launchpad machines each running tomcat and squid in tandem.
- The main squid entry point uses round robin load balancing to all three tomcat servers.
- A fourth machine is being used for monitoring and will eventually also be configured as the 4th node in the launchpad.



Status of Major Components

- Tomcat servlet engine:
 - (version 5.0.18) has been stable in all our tests.
- Frontier Servlet:
 - Stable for several last 2 months
 - A few minor updates are planned, relating to monitoring, and user identification.
- Squid Proxy/Caching server:
 - (version **2.5.STABLE7**) Stable in all tests.
 - Monitoring via snmp with mrtg plots: <http://fcdfcaf325.fnal.gov:8888/>
 - Have remote squids installed at San Diego, CNAF, and Karlsruhe CAFs.
- Instructions and installation scripts are available for installing and configuring the tomcats and squid servers.

Testing

- Extensive testing of throughput and cache performance has been done.
 - Tested dozens of simultaneous clients running on FNAL CondorCAF and SDSC CAF.
 - Filled squid cache with complete set of calibration data (~10GB), observed no performance degradation.
- Have tested failover of launchpad nodes, still some work to do.
- Soon will have several beta testers from CDF to stress test and help confirm data integrity.

Work in progress

- Tomcat:
 - Working on effective way to monitor and alarm the Tomcat server.
 - Have Ganglia monitoring on these nodes.
- Servlet:
 - Additional statistics gathering to include
 - number of threads,
 - number of connections,
 - user information from clients coming through the http header.
 - Still need a mechanism/tools for adding/updating XSD's (XML Server Descriptor) .
- Client:
 - Including user identification in http header of request.

Summary

- All systems are in place and ready for production operation.
- Monitoring is in place to watch the squids.
- We are eager to get started, and closely watching as users start to test the system.